

REMARKS

Claims 1-27 are pending in this application. Claims 1, 2, 4 and 21 have been amended by this response, Claims 3, 5-20 and 22-25 have been withdrawn from consideration and new claims 26-27 have been added. Favorable reconsideration and allowance of the application is respectfully requested.

Claim Objections

Claims 2, 4 and 21 are objected to because of minor informalities. These claims have been amended to correct the informalities. Thus, it is respectfully submitted that this objection should be withdrawn.

Claim Rejections Under 35 USC § 112, second paragraph

Claims 1, 2, 4 and 21 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

Claims 1 and 2 have been rejected because the claim feature of a utilization side heat exchanger as claimed in claims 1 and 2 is unclear. Claims 1 and 2 have been amended to recite “a plurality of utilization side heat exchangers” for clarification.

Claims 4 and 21 have been rejected because the claim feature of a refrigerant circuit including first and second adsorption heat exchangers is unclear in view of claim 1. Claim 1 has been amended to recite “at least one adsorption heat exchanger” to further clarify the claimed feature.

Claim 21 has been rejected because the claim feature of “a variable-opening expansion valve” is unclear. Claim 21 has been amended to recite “a first variable-opening expansion valve” and “a second variable-opening expansion valve” to further clarify the claimed feature.

In view of the amendments, it is respectfully submitted that claims 1, 2, 4 and 21 are definite and clear and thus, withdrawal of the rejections is respectfully requested.

Claim Rejections Under 35 USC 102

Claims 1, 2 and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Maeda, et al. (US Patent No. 6,244,057, hereinafter “Maeda”).

Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Maeda, et al. as applied to claim 2 above, and further in view of Vaynberg, et al. (U.S. Patent No. 5,687,579, hereinafter “Vaynberg”). These rejections are respectfully traversed.

Independent claim 1 is directed to an air conditioning system for running a refrigeration cycle. The air conditioning system as recited in amended claim 1 include, *inter alia*, “the plurality of utilization side heat exchangers include at least one adsorption heat exchanger provided with an adsorbent on the surface thereof and an air heat exchanger without an adsorbent for exchanging heat between air and refrigerant.”

Maeda describes, in the background section, an example of desiccant assisted air conditioning system. The system provides a process air passage and a regeneration passage. Two desiccant beds (103A and 103B) and a heat pump device 200 are provided for desiccant regeneration and cooling of process air. The heat pump device utilizes heat exchangers, embedded in the two desiccant beds, as high and low temperature heat sources. See lines 12-60 of column 1 and Figure 7 of Maeda.

However, Maeda fails to disclose or suggest at least one adsorption heat exchanger provided with an adsorbent on the surface thereof and an air heat exchanger without an adsorbent for exchanging heat between air and refrigerant as claimed in claim 1. In contrast, Maeda merely describes embedding heat pumps in desiccant beds. This is wholly unlike the present invention which provides a plurality of utilization side heat exchangers includes at least one adsorption heat exchanger provided with an adsorbent on the surface thereof and an air heat exchanger without an adsorbent for exchanging heat between air and refrigerant in addition to the adsorption heat exchanger. With this arrangement, the air conditioning system of the present invention seeks to cope with latent heat load and sensible heat load in the room and attain a high coefficient of performance. Maeda is not concerned with providing such features. Thus, Maeda does not disclose or suggest “the plurality of utilization side heat exchangers include at least one adsorption heat exchanger provided with an adsorbent on the surface thereof and an air heat

exchanger without an adsorbent for exchanging heat between air and refrigerant” as recited in claim 1.

Vaynberg describes a system incorporating an air cooled condenser in a first circuit coupled in parallel with a water cooled condenser. The water cooled condenser is further coupled to a chiller in a second circuit. The chiller operates as an evaporator in the second circuit to cool a liquid that circulates between the chiller and the water cooled condenser. See Abstract of Vaynberg. However, Vaynberg fails to remedy the deficiencies of Maeda.

In view of the above amendments and remarks, it is respectfully submitted that Maeda does not anticipate the present invention as recited in claim 1. As claims 2, 4, 21 and new claims 26 and 27 are dependent to claim 1, it is respectfully submitted that these claims are also patentable for at least the reasons discussed with respect to claim 1. Thus, it is further respectfully submitted that these rejections should be withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Dennis P. Chen Reg. No. 61,767 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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